

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: March 21, 1997  
Date Received: March 13, 1997  
Project: Metro Self Monitor, PO #56543  
Date Samples Extracted: March 18, 1997  
Date Extracts Analyzed: March 19, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, AND ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**  
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M56543	0.36	0.30	0.26	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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Date of Report: March 21, 1997

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**QUALITY ASSURANCE RESULTS  
FOR TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Laboratory Code: 76617 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	mg/L (ppm)	0.36	0.34	6	0-20
Copper	mg/L (ppm)	0.30	0.29	3	0-20
Nickel	mg/L (ppm)	0.26	0.27	4	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 76617 (Matrix Spike)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery</u>		<u>Acceptance</u>	<u>Relative Percent Difference</u>
				<u>MS</u>	<u>MSD</u>	<u>Criteria</u>	
Chromium	mg/L (ppm)	5	0.36	94	94	80-120	0
Copper	mg/L (ppm)	5	0.30	96	95	80-120	1
Nickel	mg/L (ppm)	10	0.26	93	92	80-120	1
Zinc	mg/L (ppm)	5	<0.05	93	91	80-120	2


Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery</u>		<u>Acceptance</u>	<u>Relative Percent Difference</u>
			<u>MS</u>	<u>MSD</u>	<u>Criteria</u>	
Chromium	mg/L (ppm)	5	95	94	80-120	1
Copper	mg/L (ppm)	5	94	95	80-120	1
Nickel	mg/L (ppm)	10	95	95	80-120	0
Zinc	mg/L (ppm)	5	94	95	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

KNS BI  
~~CONFIDENTIAL~~  
3-13-97  
2:20 pm

Send Report To: Alaskali Copper Works Contact GERARD Thompson  
Company 628 N. Sand St  
Address Seattle, WA 98134  
City, State, Zip 982-8379  
Phone # 3-13-97  
Date

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7258	METRO SELF MONITOR	M 56543
SAMPLERS (signature)	PROJECT LOCATION	
	3200 6th Ave S	
REMARKS	SAMPLE DISPOSAL INFORMATION	

[illegible]FORMS/COC

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Beth M. Albertson, M.S.  
Bradley T. Benson  
Kelley D. Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

**March 21, 1997**

**INVOICE # 97ACU0321-2  
DUPLICATE COPY**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

**RE: Project Metro Self Monitor, PO #56543: Results of testing requested by  
Gerry Thompson, Project Manager for material submitted on March 13, 1997.**

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$65 per sample

**\$ 65.00**

**Amount Due .....**

**\$ 65.00**

FEDERAL TAX ID # (b) (6)

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

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**March 21, 1997**

**Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134**

**Dear Mr. Thompson:**

**Included are the results from the testing of material submitted on March 13, 1997  
from your Metro Self Monitor, PO #56543 project.**

**We appreciate this opportunity to be of service to you and hope you will call if you  
should have any questions.**

**Sincerely,**

**FRIEDMAN & BRUYA, INC.**

A handwritten signature in black ink, appearing to read 'Kurt Johnson', with a stylized flourish at the end.

**Kurt Johnson  
Chemist**

**keh  
Enclosures  
ACU0321R.DOC**